37th Session of meetings of the IEEE 802.15 Working Group for Wireless Personal Area Networks

July 18-22, 2005

Hyatt Regency Embarcadero
San Francisco, CA, USA

Closing Report
TG3a
San Francisco Closing Report
22 July, 2005
TG3a: ALT PHY

- MB-OFDM no voter response presented.
- Second confirmation vote held
  - Result: MB-OFDM confirmation failed
- Chair selection vote held
  - Result: Jim Lansford and Gregg Rasor selected as co-chairs
  - WG confirmation at closing Plenary
- Technical contributions heard
- Plans for September – continue down-select process
Motion

The 802.15 working group confirms the selection of Chair candidates from TG3a as follows:

Co-chairs: Jim Lansford and Gregg Rasor

Mover: Rick Alfvin
Seconded: James Gilb

Yes: all
No: none
Abstain: none
TG3a next meeting site - Alcatraz

See you in September!
TG3c
San Francisco Closing Report

22 July, 2005
1. 16:00 Monday. 18 July. Call to order.

2. TG3c Leadership:
   Chair: R. Fisher.
   vice Chairs: H. Ogawa, A. Mathew
   Secretaries : H. Ikeda, S. Yong

3. Attendance:
   55 attendees
4. TG3c Achievements:

- Discussion on WCA petition to FCC
- Update of Channel modeling activity
- TG3c System Requirements approved
- Update of Call For Intent (CFI)
- Project Timeline updated

5. 9:45 Thursday. 21 July. Meeting ends
6. Contributions:

05/435r2, Agenda, R. Fisher

05/417, WCA Chronology, R. Fisher

05/308, Comments on the WCA Petition for Rulemaking – Amendment of Part 15 Rules for License-Exempt 57-64 GHz Band

05/400, Comments on WCA Petition to Change FCC Regulations Governing the Unlicensed 57 – 64 GHz Band, J. Gilb

05/432, WCA 60GHz Proposal FAQs, G. Levin

05/433, Reply to Comments on WCA Petition to Change FCC Regulations Governing the Unlicensed 57 – 64 GHz Band, G. Levin

05/412, Proposed 60 GHz Channel Model and Measurement Campaign: S. Skafidas

05/394, 60 GHz Indoor Channel Modeling Results : S. Emami

05/388, Transmission Calculations of layered structures at 60 GHz, K. Siwiak

05/384, Australian 60 GHz Regulation, T. Pollock
05/425, Proposal of Introducing “IF-mmW Non-regenerative repeater mode” into 15.3c PHY, H. Ogawa

05/438, Throughput calculation discussion, J. Gilb

05/423, Projected applications and date rate, A. Mathew

05/425, Proposal introducing if-mmw non regenerative repeater mode into 15 3c PHY, H. Ogawa

05/448, Proposed Rate Range requirements 802 15 3c, S. Skafidas

05/442/r1, Comments WCA Petition to change FCC regulations governing unlicensed 57-64 ghz band, G. Baldwin

05/430, TG3 Technical requirement sub-group report, A. Seyedi

05/431, TG3c rate-range requirements, A. Seyedi

05/439, CFI Respons, R.Fisher

05/353r5, TG3c System Requirements, A. Seyedi
Motion to approve 18-05/023r2

“Comments on the Petition for Rulemaking- Amendments of Part 15 Rules for License-Exempt 57-64 GHz Band”

As the 802.15 working group position on the WCA petition to the FCC.

Move: R. Fisher
Second: J. Gilb

Yes: 36
No: 0
Abstain: 0

Note: The original 15-05/308r0 was sent to WG18 and was modified. Then it became 18-05/023r2 in WG18.
TG4a
San Francisco Closing Report

22 July, 2005
Meeting Objectives

• Update the full list of technical issues in the editing areas of UWB, Ranging, CSS/2.4 GHz, and MAC ✓Done!

• Hear presentations and discussions on the above mentioned technical issues ✓Done!

• Hear presentations and discussions on proposals to resolve the above technical issues ✓Done!

• Clarify energy detect receiver role in this standard ✓Discussed but not resolved

• Resolve between the Two and Four way Ranging issue ✓Discussed but not resolved
Meeting Objectives (cont’d)

• Conclude Band Plan Review and if Necessary Modify Existing Band Plan ✓Done, existing band plan was reaffirmed!

• Finalize Pulse Compression Discussion and Vote on Resolution ✓Preamble Done! but data not yet!

• Stretch Goal: Resolve Modulation Issue ✓Not Done!

• Discuss TG4a Activity Between July and September Meetings ✓Done!

• Revise Project Plan ✓Done!
## TG4a Schedule

<table>
<thead>
<tr>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 6 7 8 9 10 11 12</td>
<td>1 2 3 4 5 6 7</td>
<td>8 9 10 11 12</td>
<td>1 2 3</td>
</tr>
</tbody>
</table>

- **Task Group Formed**: x
- **Call for application created July 2003**: x
- **Selection criteria document created**: x
- **Call for intent to propose**: x
- **Call for proposal issued**: x
- **Channel Models Release**: x x x
- **Preliminary Proposals**: x x
- **Present final proposals**: x x
- **Baseline proposal selected**: x
- **Proposal draft completed**: x x x x x
- **1st letter ballot completed**: x
- **Resolution of comments completed**: x x x
- **Re-circulation completed**: x x x
- **2nd re-circulation**: x x
- **Resolve 2nd re-circulation comments**: x x
- **3rd re-circulation**: x x x
- **Resolve 3rd re-circulation comments**: x x x
- **Sponsor ballot period**: x
- **Sponsor ballot comment resolution**: x x x x
- **Re-circulation completed**: x
- **RevCom Approval**: x

*Note: The schedule includes dates from 2004 to 2007.*
TG4a Conference Calls

- Ranging: 8 CDT Monday
- Modulation: 8 CDT Wednesday
- MAC: 9 CDT Monday
- Non-coherent: 8 CDT Tuesday
- UWB: 9 CDT Thursday
- Sub GHz UWB: 11 CDT Thursday
- CSS: 6 CDT Wednesday
TG4b
San Francisco Closing Report

22 July, 2005
# Meeting Objectives

<table>
<thead>
<tr>
<th>LB31 Comment Resolution</th>
<th>See next slide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare Motion for Recirculation Ballot</td>
<td>See following pages.</td>
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## Future Meeting Objectives

<table>
<thead>
<tr>
<th>Date</th>
<th>Objective</th>
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</thead>
<tbody>
<tr>
<td>Jul 05 Plenary</td>
<td>Comment Resolution, get WG approval for Recirculation Ballot (done).</td>
</tr>
<tr>
<td>Sep 05 Interim</td>
<td>Comment Resolution &amp; prepare draft.</td>
</tr>
<tr>
<td>Nov 05 Plenary</td>
<td>Comment Resolution, seek ExCom approval to go to 30 day Sponsor Ballot.</td>
</tr>
<tr>
<td>Jan 06 Interim</td>
<td>Resolve comments arising from Sponsor Ballot.</td>
</tr>
<tr>
<td>Mar 06 Plenary</td>
<td>Seek ExCom approval to submit draft to RevCom.</td>
</tr>
<tr>
<td>May 06 Interim</td>
<td>?</td>
</tr>
<tr>
<td>Jun 06</td>
<td>RevCom meets.</td>
</tr>
</tbody>
</table>
LB31 Comment Resolution Results

- Week Start: 416 open
  - (224 E, 123 T, 69 TR)
- Week End: 276 left to resolve
  - (205 E, 49 T, 22 TR)
Useful Documents

- 15-05-0434-00: Minutes
- 15-04-0237-08: Timeline
- 15-05-0395-0x: Comment Database
- 15-05-0463-00: This (Closing) report
Inter-session activity

• TG4b/MAC conference calls: Mondays 10AM EDT
• PHY conference calls to be scheduled starting 4 Aug, Thursdays 11AM EDT.
Motion

The 802.15.4b Task Group authorizes the TG4b ballot resolution committee to complete comment resolution and release the result to a recirculation of LB31 at least 15 days prior to the Garden Grove meeting.

Moved: Phil Beecher.
Seconded: Rene Struik.
(Passed by unanimous consent.)
Motion

The 802.15 Working Group authorizes the TG4b ballot resolution committee to complete comment resolution and release the result to a recirculation of LB31 at least 15 days prior to the Garden Grove meeting.

Moved: Robert Poor.
Seconded: Ed Callaway.
TG5
San Francisco Closing Report

22 July, 2005
TG5 WPAN Mesh
July 2005, San Francisco

Meeting Objectives

• Proposal Presentations
• Election of new chair
• Discussion on Project plan
Proposal Presentations

- Mesh Networking for IEEE 802.15.4 (15-05-0469) - Michael Sim, Panasonic
- Mesh Routing proposal (15-05-0443) - Yong Liu, Samsung
- Mesh PAN Alliance (15-05-0247) – Philips, Guido Hiertz
- An Architecture for Mesh Networks (15-05-0455) – Ho-in Jeon, Kyungwon Univ.
This Week

- Task Group decided to write a baseline document based on:
  - High Rate: Merged proposal between Philip’s and Samsung’s
  - Low Rate: Samsung’s proposal
- The baseline document will be completed by September meeting to be reviewed by the Group to identify essential components to WPAN mesh but missing in the baseline document.
- TG will discuss at September meeting future project plan
Election of the new TG Chair

• Affirmation of Myung Lee to be the new TG chair by unanimous consent and sent to WG for approval
Next
Next Meeting

- Hyatt Regency, Garden Grove, CA, USA
  September 18-23